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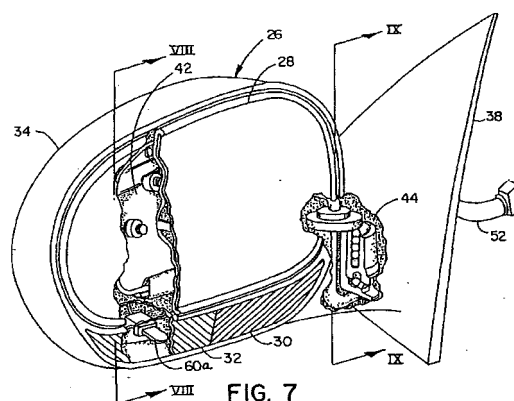
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### (54) **Vehicle exterior mirror system with signal light**

(57) An exterior mirror assembly for a vehicle includes a signal light that provides an advanced notification system to approaching vehicles that the driver of the vehicle intends to turn or make a lane change. The exterior mirror assembly includes a housing with a reflective element and a positioning device for adjusting the position of the reflective element in the housing, and at least one signal light positioned in the housing. The signal light includes a light source and a light conducting member which is adapted to project a pattern of light from the housing and yet restrict light from extending into the vehicle so that a driver seated in the vehicle does not directly observe the pattern of light. The light source may be provided by a light pipe which is optically coupled to a remote light source located, for example, in the vehicle. Preferably, the pattern of light extends at least rearwardly and laterally from the vehicle. In one form, the light conducting member includes a light input surface on one end and at least one light emitting surface for directing light outwardly from the housing of the exterior mirror assembly. In another form, the exterior mirror assembly includes a powerfold mirror system which incorporates a security light which directs light in a first light pattern when mirror assembly is in its normal use position and a second pattern when the mirror assembly is in its folded position.



**FIG. 7**

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# EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	DE 195 38 771 A (REITTER) 24 April 1997 (1997-04-24) * abstract *	1,6-8, 10-13	B60R1/12
X	DE 297 02 746 U (REITTER) 3 April 1997 (1997-04-03) * page 5, line 27-31 *	14-17	
D,A	US 5 669 705 A (PASTRICK) 23 September 1997 (1997-09-23)		
D,A	US 5 669 704 A (PASTRICK) 23 September 1997 (1997-09-23)		
D,A	US 5 497 306 A (PASTRICK) 5 March 1996 (1996-03-05)		
D,A	US 5 497 305 A (PASTRICK) 5 March 1996 (1996-03-05)		
The present search report has been drawn up for all claims			<b>TECHNICAL FIELDS SEARCHED (Int.Cl.6)</b> B60R
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>26 February 2001</b>	Examiner <b>Knops, J</b>
<b>CATEGORY OF CITED DOCUMENTS</b> X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 99 65 0053

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26-02-2001

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 19538771 A	24-04-1997	NONE	
DE 29702746 U	03-04-1997	EP 0858932 A US 6099153 A	19-08-1998 08-08-2000
US 5669705 A	23-09-1997	US 5497305 A US 5371659 A US 6074077 A US 6099155 A US 5863116 A US 6149287 A US 6086229 A US 5497306 A US 5669699 A US 5669704 A US 5823654 A US 5879074 A GB 2275329 A,B GB 2307737 A,B GB 2307738 A,B	05-03-1996 06-12-1994 13-06-2000 08-08-2000 26-01-1999 21-11-2000 11-07-2000 05-03-1996 23-09-1997 23-09-1997 20-10-1998 09-03-1999 24-08-1994 04-06-1997 04-06-1997
US 5669704 A	23-09-1997	US 5497306 A US 5497305 A US 5371659 A US 6149287 A US 6086229 A US 5823654 A US 5879074 A EP 0738627 A JP 9048284 A US 5669699 A US 6074077 A US 6099155 A US 5669705 A US 5863116 A GB 2275329 A,B GB 2307737 A,B GB 2307738 A,B	05-03-1996 05-03-1996 06-12-1994 21-11-2000 11-07-2000 20-10-1998 09-03-1999 23-10-1996 18-02-1997 23-09-1997 13-06-2000 08-08-2000 23-09-1997 26-01-1999 24-08-1994 04-06-1997 04-06-1997
US 5497306 A	05-03-1996	US 5497305 A US 5371659 A EP 0738627 A JP 9048284 A US 6149287 A US 6086229 A US 5669699 A	05-03-1996 06-12-1994 23-10-1996 18-02-1997 21-11-2000 11-07-2000 23-09-1997

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 99 65 0053

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

26-02-2001

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5497306 A		US 5669704 A	23-09-1997
		US 5823654 A	20-10-1998
		US 5879074 A	09-03-1999
		US 6074077 A	13-06-2000
		US 6099155 A	08-08-2000
		US 5669705 A	23-09-1997
		US 5863116 A	26-01-1999
		GB 2275329 A,B	24-08-1994
		GB 2307737 A,B	04-06-1997
		GB 2307738 A,B	04-06-1997
US 5497305 A	05-03-1996	US 5371659 A	06-12-1994
		US 6149287 A	21-11-2000
		US 6074077 A	13-06-2000
		US 6086229 A	11-07-2000
		US 6099155 A	08-08-2000
		US 5497306 A	05-03-1996
		US 5669699 A	23-09-1997
		US 5669704 A	23-09-1997
		US 5669705 A	23-09-1997
		US 5823654 A	20-10-1998
		US 5879074 A	09-03-1999
		US 5863116 A	26-01-1999
		GB 2275329 A,B	24-08-1994
		GB 2307737 A,B	04-06-1997
		GB 2307738 A,B	04-06-1997